ABSTRACT

This invention relates generally to nucleic acid hybridization and analysis. More specifically, oligonucleotide probes each containing both double and single-stranded regions and one looped end, or arrays of such oligonucleotide probes immobilized on a solid support via the looped end, are provided which are suitable for hybridization and analysis. Based on the molecular structure, specific methods for nucleic acid hybridization, processing, including automated processing, and analysis using the probes or array of probes immobilized on a solid surface, particularly including a reflective surface are also provided.